

its author to Michaux) is referred by Gray to the synonymy of *A. ericoides*, the description is not entirely convincing, and the name is best passed over. Specimens of the present form with stems absolutely glabrous are difficult to find. The name *pilosus* should be restricted to those plants in which the stem is conspicuously hairy, and the subglabrous plants referred to var. *demotus*.

A. PILOSUS var. **pringlei** (Gray). *Aster ericoides* var. *pringlei* Gray, Syn. Fl. 1²: 184. 1884. *Aster pringlei* (Gray, Proc. Amer. Acad. 16: 99. 1880, nomen nudum); Britton in Britton & Brown, Ill. Fl. 3: 379. 1898.

A. PILOSUS var. **reevesii** (Gray). *Aster ericoides* var. *reevesii* Gray, Syn. Fl. 1²: 184. 1884. *Aster reevesii* Hort.; Gray, l. c. as synonym. 1884.

An ambiguous form. *Aster priceae* Britton, Man. 960. 1901, and *A. kentuckiensis* Britton, l. c., are closely related and when better known may prove to be synonymous with this variety or recognizable as independent varieties.

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CUBELIUM CONCOLOR

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So little has been written concerning *Cubelium concolor* (Forst.) Raf. that it seems worth while to note some observations in relation to it.

The type was described as having stems hispid throughout, was in cultivation and of North American origin. Such hispid plants occur here and there nearly throughout the range of the species, but usually are glabrous below and in varying degree to the summit. The hairs are of several kinds, all segmented. Those strictly hispid sometimes occur alone and rather sparsely. Commonly these are more or less obscured by mixture with glistening white, flattened, irregular hairs which, when abundant, give a coarse, somewhat woolly appearance to the stem. Among the latter may be some spiral hairs and some with the planes of the flattened segments at diametrical right angles, the terminal one ensiform.

There is every degree of lesser hairiness to that in which it is reduced to narrow lines toward the summit of the stem, a scant pubescence, or

entire glabrousness. These characters and more are easily seen with a hand-lens.

The plant is at least locally common in the Central States and has long been known eastward to central New York and the Delaware valley. Further east but three stations appear in the records: NEW YORK: "Lebanon," Columbia Co., *L. C. Beck*,¹ near the Massachusetts State line west of Pittsfield; Pine Plains, Dutchess Co., *L. H. Hoysradt*,² about eight miles from the Connecticut State line, where, "in a cold mountainous woods" on Mt. Ararat, "it was growing luxuriantly—many of the stems being all of three feet in height—and covered several acres . . . almost to the entire exclusion of other herbaceous plants"; Tarrytown, Westchester Co., 1864, *I. H. Hall*,³ five miles from the Connecticut State line.

On May 17, 1929, I found a long-established colony of it in the Housatonic valley at Southbury, New Haven County, Connecticut, the flowers immature, and, excepting cilia on leaves and stipules, the plants essentially leavigate throughout. It grew often in clumps of 10–30 stems, with smaller groups and a few solitary stems skirting the colony. Later collections had slight pubescence, mostly in narrow lines, while some clumps had stems sparsely hispidulous toward the summit, thus approaching the type, but the flowers and capsules were too small to fit descriptions.

Fresh flowers never exceeded 6 mm. long; most of them were 5–5.5 mm., or when dried 4–5 mm. The capsules rarely exceeded 15 mm. in length, with a diameter of 12–13 mm. Other similar specimens in herbaria have capsules normal for the species, at least to 21 mm. long. Western specimens of the species often have flowers about 1 mm. longer.

This nearly or quite glabrous phase of the species, being extreme and easily recognizable, was distributed by me to several herbaria under a manuscript varietal name. While its status may be a matter of point of view, it is here proposed as

CUBELIUM CONCOLOR (Forst.) Raf., f. **subglabrum**, f. nov., caulibus omnino glabris, vel lineis angustis leviter pubescentibus ornatis, vel superne sparsissime hispidulis.

Stems glabrous throughout, to slightly pubescent in narrow lines, or very sparsely hispidulous at the top.—Southern Ontario to Con-

¹ Botany of the Northern and Middle States, 42. 1833.

² Bull. Torr. Bot. Club 5: 37, 47. 1874.

³ Bull. Torr. Bot. Club 1: 6. 1870.

necticut and Alabama. ONTARIO: London, 1881, *Burgess*. NEW YORK: Collins, Erie Co., *Anne E. Perkins*, no. 75,316 in part. Various stations in the central part of the State. CONNECTICUT: in pockets of rich soil among coarse blocks of talus near base of wooded slope, Southbury, New Haven Co., June 2, July 7, 1929, *E. H. Eames*, no. 10,876. NEW JERSEY: Hunterdon Co., *H. W. Pretz*, no. 2964. PENNSYLVANIA: Lehigh Co., Bethlehem, 1869, *A. F. K. Krout*; near Allentown, *Krout, Pretz*, no. 2489; along Jordan Creek, *Pretz*, no. 8457 some large colonies for several miles, partly in lime-stone soils and talus. Apparently rare at various points to GEORGIA: bank of Savannah River, Germain's Island, Columbia Co., *R. M. Harper*, no. 1297 (TYPE in Gray Herb.); Rome, Hb. *A. W. Chapman*. ALABAMA: without locality, May, 1841, *S. B. Buckley*, no. 1; Clay Co., 1897, *F. S. Earle*. TENNESSEE: *S. B. Buckley*; Knoxville, 1898, *A. Ruth*, in part.

In some localities plants typical of both the species and the form have been collected and distributed with the same data. In both the capsules have the sides parallel toward the apex which is rather squarely obtuse, due to abrupt incurving of the valves to the depressed style-base. Rhizomes are distorted, knotted, very hard, often massed. Main roots are cord-like with rootlets whitish, irregularly much branched and interlaced, of nearly constant size, and forming bulky masses sometimes 35 cm. long. Some clumps growing in leaf-mold topping cavernous spaces had the lower rootlets suspended, with the soil merely adherent.

Young stems are succulent, brittle, while dead ones of the preceding year lying about commonly show some wind-whipped fibres in coarsely fibrous gray integument. A little search in the litter may reveal buff-colored, wide-spreading open capsules or valves.

Throughout its range the species shows a preference for well-drained slopes, especially near the base of wooded talus which is very often limestone or containing lime, and occurs in colonies often extensive. Noteworthy specimens include one from "Hot Springs, Little Rock" Hb. *George Engelmann*, Sept., 1835, growing in "saline" conditions, having a stem 40 cm. tall and two leafy branches 18 and 19 cm. long; and one plant of the form in flower, Rome, Georgia, Hb. *A. W. Chapman*, with the stem 24 cm. long and leaves about 12 by 40 mm.

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